



## Fall 2018

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Check out the Story Map from the 2018 Geo-Inquiry Institute

[Geo-Inquiry and Power of Data Summer Institute in Steamboat Springs](#)

In June 2018, Teachers from Peetz to Durango and Salida to Longmont

### Colorado Geographic Alliance

This is the final communication from the Colorado Geographic Alliance. For information about support for geography education in Colorado by National Geographic please contact Regional Director Chris Hines at [chines@ngs.org](mailto:chines@ngs.org) or Colorado Geography Steward Michelle Stewart at [colorado.geographysteward.ngs@gmail.com](mailto:colorado.geographysteward.ngs@gmail.com). Below you will find a variety of opportunities for students, teachers, and administrators to support geography education in the state. On behalf of all previous Alliance Coordinators, please accept this note of appreciation for everything you do to support and provide geography education in the state of Colorado.

### Giant Map of Colorado

Many schools, districts, universities, BOCES, and educational organizations across the state have purchased a giant map from [National Geographic](#). Some of these maps are available for borrowing by teachers and schools in the region, while others are for use only in a particular location. Check out this [map](#) for information about a Giant Map of Colorado near you.



Did you buy a Giant Map of Colorado and are looking for the materials? Don't reinvent the wheel! The Colorado Geographic Alliance created a google site with lists of lessons, materials, and logistical details to guide you in setting up your own Giant Map kit. Visit the [site here](#).

Going forward, you might develop a lesson for use on the Giant Map of Colorado. If you have interest in participating in a workshop of Giant Map owners and/or users, contact Regional Director Chris Hines so he can keep track of your contact details.

### GeoCivics

Looking for ways to link geography and civics? Wondering how to ground current issues in historical context? Needing to teach apportionment and redistricting from a new angle? Explore resources on the [GeoCivics](#) website, including a state-based interactive mapping activity that allows participants to redistrict Colorado at the county level in preparation for redistricting after the 2020 Census. Questions? Email Rebecca Theobald at [geocivics50@gmail.com](mailto:geocivics50@gmail.com).

### The Art of Geography

The [American Museum of Western Art](#) (AMWA) has partnered with [Resource Area for Teaching](#) (RAFT) to create a hands-on kit to create a

gathered to learn about access to geospatial technology programs, to hike around the Colorado Mountain College campus investigating bees and Ute sacred spaces, and to learn about the geology of the hot springs. In addition to knowledge about the National Geographic Geo-Inquiry process, teachers developed partnerships and connections to inspire new approaches in the classroom. Review all the activities in this [story map](#) by Grand Junction teacher Heidi Ragsdale.

## Ten Years of COGA Newsletters

For additional background information about the transition at the National Geographic Society, please visit past newsletters on the COGA [website](#).

topographic map of the state using AMWA's paintings as inspiration and found objects as elevation and important sites as well as characteristics of each region; important political, social, and cultural sites; and natural and created resources. This is a new project. Contact [Kristin Fong](#) for details.



## How Maps Reveal (and Conceal) Our History

Join the [Rocky Mountain Map Society](#) for a lecture from University of Denver professor Susan Schulten on Tuesday, December 11, 2018 at 5:30 pm in the Gates Room at the downtown Denver Public Library. Whether handmaidens of diplomacy, tools of statecraft, instruments of social reform, or advertisements, these sources offer unique windows onto the past.

## Colorado Department of Education



**COLORADO**  
Department of Education

From its inception, the Colorado Geographic Alliance partnered with educational organizations across

Colorado. A good resource for geography education materials is the Colorado Department of Education (CDE), which has links to a wide variety of educational support organizations. Visit the science, social studies, and technology content on the [CDE website](#) for ideas and opportunities.

## ArcGIS Online Competition

With skill, passion, and analysis, high school and middle school students are exploring their world and creating interesting map products with ArcGIS Online. Esri challenges US students to create and share maps about something in their home states, striving to be among the best in the school, state, and nation. Time to start working with your students on their entries for the ArcGIS Online Story Mapping Competition! Mentoring is available for all skill levels - no experience with interactive mapping is required. Students and teachers from any discipline can learn story map skills, while having a chance to win \$100 and become Esri's national champion. Esri's 2019 [ArcGIS Online US School Competition](#) is open to students at high schools (grades 9-12) and middle schools (grades 4-8) in the US who can interpret and present data via an ArcGIS Online web app or story map. For questions about the Colorado competition, visit this [website](#) or email [Matt Cooney](#), GIS Technical Director at Colorado College.

Here is a link to the middle school national winner.

<http://linwood.maps.arcgis.com/apps/MapJournal/index.html?appid=ad3385e13aa14df9911e19f86c4c9dd3>

Explore these Colorado story maps for inspiration.

[Riparian Restoration Management Plan](https://bit.ly/2wyjS6L) - <https://bit.ly/2wyjS6L>

[The Need for Agricultural Education](https://bit.ly/2jWai0b) - <https://bit.ly/2jWai0b>

[Leveraging Satellite Imagery](http://arcg.is/154Wqmq) - <http://arcg.is/154Wqmq>

## Upcoming Conferences

The **Colorado Science Conference** for Professional Development is a one-day conference on Friday, November 9 in Denver providing professional development regarding science content, education strategy, and research geared towards anyone interested in science education, including K-12 teachers, college instructors, informal educators, administrators, pre-service teachers, and retired teachers. The [conference](#) will feature presentations regarding the science content areas of biology, chemistry, earth and space science, physics, and environmental science within the education settings of Early Childhood Education, K-12, College, and Informal Education.



The **Colorado Council for the Social Studies** Annual Conference, entitled "Pursuit of Excellence: Setting Standards in a Changing World," will be held on Friday, March 15, 2019. Visit the [website](#) for more information about submitting, exhibiting, or attending.

Also in March, the **Colorado Alliance for Environmental Education** will host the 19<sup>th</sup> annual Colorado's Advancing Environmental Education Conference (formerly Teaching OUTSIDE the Box). The conference brings exciting new opportunities and formats to foster learning, discussion and collaborations around new ideas, trends, and practices that advance environmental education. Click here to learn more about the [event](#).

## Looking for ideas about how to share information about Colorado in a map?

Check out the [Colorado Digital Atlas](#). This resource provides a great start to exploring our state, and is an excellent example of what can be done using the Esri [Story Map](#) program.

## How to be an Explorer: Attitudes, Skills, and Knowledge

Hear from Alabama Geographic Alliance Coordinator and University of North Alabama professor Lisa Keys-Mathews about [The Importance of Creativity in Solving the World's Problems](#).

## Geography and STEM

Over the past several years, the Colorado Geographic Alliance has been collaborating with [100kin10](#) to support qualified STEM (Science, Technology, Engineering, Math) teachers in communities across the United States. For the past two years, COGA Coordinator Rebecca Theobald led a discussion about approaches to supporting STEM education in rural communities. Learn about the Project Team's work on

the [Grand Challenges website](#) where you will also find links to the GrowRuralSTEM Twitter account and YouTube channel, as well as the Project Team webinar and final report. Thanks to all the schools across Colorado who hosted professional development workshops and the Giant Map, which helped provide perspective for this discussion.

# 100K<sub>IN</sub>10

## Passage of the Geospatial Data Act

On October 3, 2018, the American Association of Geographers (AAG) announced that the Geospatial Data Act (GDA) had been passed by the US Congress, absent damaging exclusionary procurement provisions that were previously in the bill. AAG has been monitoring and providing expertise to Congress regarding the GDA for several years, at the request of Congressional members. For more details about this legislation, visit the [AAG website](#).

## Young People and Climate Change Communication

Sandra Laursen attended a talk at CU Boulder by Maria Ojala from Örebro University in Sweden, a psychology and education researcher doing interesting work on how young people (11 yrs to young adult) respond to climate change. Below are her notes, which may be of interest to those who teach climate change or work with teachers who do.

The short version: Coping strategies that generate positive emotions about taking action and feeling hope are the most constructive. Young people pay attention to how adults (especially parents and teachers) respond to their emotions around climate change and cope with their own emotions... so adults can help by listening, sharing, and modeling constructive coping. We probably need some reflection and practice first, to do this well with youth.

### Notes - Maria Ojala, 5 November 2018

The session started with a performance from a group of nine middle school girls, in nature-themed green felt costumes they had designed and made, with climate change song and dance and poetry from "[Inside the Greenhouse](#)". They channeled the Queen of Soul as they sang,

C-L-I-M-A-T-E

Find out what it means to me!

The speaker talked about her research on how young people cope with their feelings about climate change. She described three kinds of coping:

1. Emotion-focused coping - ways to reduce or downplay the negative emotions of pessimism, helplessness and hopelessness. This includes strategies such as diminishing the threat (denying CC is real; 'it's not my problem'); distancing (distracting oneself, avoiding information); seeking social support; and focusing on hopelessness as a way to excuse inaction. Boys more commonly reported these approaches. As you might expect, youth who relied on these approaches were less engaged and knowledgeable, felt less agency or efficacy (ability to act and to have an impact on a problem) and overall lower well-being.
2. Problem-focused coping - ways to attack the problem itself. This includes doing individual things to help (recycling, riding a bike) and encouraging others to do them too. These tended to focus on individual behaviors, sometimes also group behaviors - 'If we all do it, it helps'. Girls were more likely to use these coping strategies. Youth using these strategies reported higher engagement and efficacy, but didn't experience greater feelings of general well-being.
3. Meaning-focused coping - ways to invoke or generate positive emotions about the issue. These included positive reappraisal or reframing: 'Humans have solved hard problems before, we are learning more.' Also positive thinking or "defiant hope" (great phrase!)



- an affirmative choice to be optimistic or hopeful: 'This is hard but we must have hope, we can't give up.' Also trust in other parts of society, such as technology, scientists, business, the environmental movement, to help things improve. Youth using these coping strategies were more engaged, felt more efficacy, and also reported stronger well-being... particularly if they used this approach in combination with problem-focused coping, i.e. taking some actions.

Ojala finds that *collective* engagement on climate change is particularly useful for youth in generating hope and a sense of agency and self-esteem, and gave the example of a Swedish girl who has been on a school strike in front of parliament (now every Friday, joined by others).

So what can we adults do - as educators and family members - do to foster these positive coping strategies? Two things are important - how we react to young people when they express these issues, and how we model coping ourselves.

Ojala's research found that young people who used meaning-focused coping described their teachers and parents as accepting and open to talking about their negative emotions, and as speaking about climate change with a focus on solutions and hope. In contrast, those who used emotion-focused coping - the less constructive and helpful strategies - saw adults as dismissive of their concerns, and as talking about climate with gloom-and-doom language. Her advice included the following:

- Take young people's concerns seriously - don't dismiss or downplay the darker emotions.
- Break the "spiral of silence" - be a role model in making your own emotions and coping strategies visible and explicit, especially the more constructive feelings and strategies. Putting emotions into words is a positive step toward managing them!
- Help young people with perspective-taking - describing climate change as not just a threat but a source of hope. We can imagine bad scenarios, but we can also imagine a better future and think about what pathways can get us there.
- Put youth in contact with adults who are doing work on climate change (and talk about your own actions!) - scientists, activists, inventors etc. This reminds me of Mr. Rogers' advice about talking with children about a tragedy - "Look for the helpers".
- Show them what young people can do - especially collective and participatory actions, not only consumer choices.

Sandra noticed these strategies are not only used by youth. Adults feel the same way. The strategies also echo other recommendations for climate communication: acknowledge that the problem is real and that it's us, and move conversation toward the solutions: we can do something to solve it.

## Consider Exploring beyond Colorado

Qatar Foundation International (QFI), in partnership with the Global Exploration for Educators Organization (GEEO) and the University of Texas at Austin's Center for Middle Eastern Studies, announces a funded cultural immersion trip for up to sixteen K-12 educators from April 7 to 19, 2019. To apply, register and complete the application in QFI's Grants Management Portal, visit [FluidReview](#).

## National Geographic Educator Community

### National Geographic Educator Network Online Community

If you are interested in staying connected to the National Geographic Society, be on the lookout for an invitation to opt-in to the online educator community later this year. You can also [sign up](#) for early access to join the new platform which will share classroom and professional development resources.

### Free Online Course: Connecting the Geo-Inquiry Process to Your Teaching Practice, January 2019

Today's students need to understand how the complex and dynamic

human and natural systems interact. The Geo-Inquiry Process relies on using a geographic perspective, offering a unique lens to analyze space, place, and the interconnections between both the human and natural worlds. Using both a geographic perspective and the Geo-Inquiry Process, students begin to connect complex components, see patterns, and make connections by asking questions that lead to action and change in their communities. For more information, go to <https://natgeo.tfaforms.net/83>.

### **Become a Grosvenor Teacher Fellow**

Do you know pre-K-12 or informal educators who are ready for the professional development opportunity of a lifetime? Applications are currently being accepted for the 2019 Grosvenor Teacher Fellow program, which will send 45 educators aboard Lindblad Expeditions' voyages for a life-changing, field-based experience. Through their participation in the program, Grosvenor Teacher Fellows gain a new level of geographic awareness for themselves, their students, their professional colleagues, and the communities in which they live. For details, apply at <https://www.nationalgeographic.org/education/professional-development/grosvenor-teacher-fellows>.

### **Geography Awareness Week and GIS Day 2018**

Geography Awareness Week is November 11-17, 2018. This year's GIS Day will be held on Wednesday, November 14. GIS Day provides an international forum for users of geographic information systems (GIS) technology to demonstrate real-world applications that are making a difference in our society. Hold an open house, conduct a presentation or workshop, or be creative and hold some other sort of event that showcases what you are doing with GIS and why it matters.

Read more about GIS Day and register at this [link](#). Read more about Geography Awareness Week on National Geographic's [website](#).

### **Colorado Geographic Bee**

Registration is open for the 2018-2019 National Geographic GeoBee! Register your school-grades 4 through 8 for the annual competition that rewards students' curiosity about the world. Registration includes study resources for your class, participation and school champion certificates, and more than 400 exciting GeoBee questions to quiz your students about geography, cultures, physical features, history, earth science, and more! Register today at <http://www.natgeobee.org/>.



### **National Geographic GeoChallenge**

Bring project-based learning to your classroom with this annual standards-based competition that empowers student teams in grades 5 through 8 to address a critical issue and change the planet, just like a National Geographic Explorer. This year's theme is Tackling Plastic. Register today at

## National Center for Research in Geography Education Funds Research Networks on Geography and Civics, Geo-Computation, and International Curriculum Exploration

The third cohort of grantees under the NCRGE Transformative Research grant program was announced in June. This investment by NCRGE continues a long-term and broad-based effort to develop a research coordination network supporting implementation of the Road Map for 21st Century Geography Education project's landmark report on geography education research. NCRGE funds research planning and networking activities to strengthen geography education research processes and promote the growth of sustainable, and potentially transformative, lines of research. One research group, under the direction of Rebecca Theobald (University of Colorado Colorado Springs), will focus on geography and civics education in the context of decennial procedures of apportionment and redistricting at the federal level, which will next take place following the 2020 Census. In this project, researchers will expose multiple audiences to geographic concepts and skills using interactive tools and methods, including giant state maps furnished by National Geographic, accessible digital presentation software, and interactive geospatial technology tools. The objective is to add to knowledge about the best approaches for extending geospatial analysis into secondary schools and about the most effective ways to bring geography into public policy discussions. Full details are available [here](#).

### Colorado Geographic Alliance

#### VISION:

Changing our understanding and  
experience of the world

#### MISSION:

To instill and nurture spatial awareness  
and geographic literacy

#### VALUES:

Inspiring passion for Earth and its inhabitants  
Connecting people with geography  
Honoring inclusivity and diversity  
Exploring physical and human environments  
Developing spatial perspective

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